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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/683,523 | 01/13/2002 | Fuhu Chen | 22176-2 | 1538 |

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BROWN, RUDNICK, BERLACK & ISRAELS, LLP.
BOX IP, 18TH FLOOR
ONE FINANCIAL CENTER
BOSTON, MA 02111

EXAMINER

ELVE, MARIA ALEXANDRA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1725 | |

DATE MAILED: 03/12/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/683,523

Applicant(s)

Chen et al

Examiner
M. Alexandra Elve

Art Unit
1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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DETAILED ACTION

Claim Objections

1. Claims 7 & 15 are objected to because of the following informalities: clm 7 "comprisi" and clm 15 "w.ire". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. Claims 1, 3-8, 12-13, 15-17 & 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clearly what the percentage is with respect to, that is, wt%, atomic%, volume% and so forth.
3. Claims 5 & 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not known what the composition/combination refers to, that is, a sheath, wire, core and so forth.

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Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7, 9 & 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagarajan et al. (US Pat. 5,824,992).

Nagarajan et al. discloses a metal core weld wire having a steel sheath with a core. The core composition includes iron powder. The core composition of metal-core wires also includes iron powder usually as a filler material, and the core composition comprises generally between approximately 13-45% of the total wire weight. There are many types of metal-core wires, these include low carbon metal-core wires, stainless steel metal-core wires, low alloy metal-core wires and so forth. Nagarajan et al. teaches a carbon content of 0.005-0.15 wt%, manganese 1-4 wt%, silicon 0.2-2.5 wt%, chromium 0.01-15 wt%, nickel 0.01-17 wt% and molybdenum 0.01-18 wt%.

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagarajan et al. as stated in paragraph 5, above and further in view of Drossman (US Pat. 5,332,628).

Nagarajan et al. does not teach deposition rates. Drossman discloses a weld wire which is in the form of a hollow ductile wire having a powdered metal core. The wire comprises a mild steel. The wire contains chromium, silicon, manganese, iron, carbon and so forth. The ductile metal sheath surrounding metallic or a combination of metallic and non-metallic powders. The wire is used in electric arc and thermal welding or spraying at deposition rates of 5 to 25 lbs or higher per hour. It would have been obvious to one of ordinary skill in the art at the time of the invention to have noted deposition rates, as stated by Drossman in the Nagarajan et al. system, because these are standard industrial manufacturing specifications.

8. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagarajan et al. as stated in paragraph 5, above and further in view of Saito et al. (US Pat. 4,593,174).

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Nagarajan et al. does not teach the welding speed. Saito et al. discloses arc welding of low carbon steel. Arc welding was conducted at speeds of 30 to 50 cm/min. It would have been obvious to one of ordinary skill in the art at the time of the invention to note the welding speeds, as stated by Saito et al. because these are standard industrial manufacturing specifications.

9. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagarajan et al., as stated in paragraph 5, above and further in view of Ziemek (US Pat. 3,800,405).

Nagarajan et al. does not teach wire drawing. Ziemek teaches the making of a drawn wire having a core and sheath. The wire is drawn through a series of dies in order to reduce the wire diameter. It would have been obvious to one of ordinary skill in the art at the time of the invention to drawn the wire, as taught by Ziemek in the Nagarajan et al. wire because this merely a manufacturing variation.

Conclusion


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See US PTO-892.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is (703) 308-0092. The examiner can normally be reached Monday to Friday from 6:30 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn, can be reached on (703) 308-3318.

Any inquiry of general nature to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 308-0661.



M. ALEXANDRA ELVE
PRIMARY EXAMINER

March 7, 2003.